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Citation for published version:

Hashemi, M 2019, 'Bedouins of Silicon Valley: A neo-Khaldunian approach to sociology of technology', *The Sociological Review*, vol. 67, no. 3, pp. 536-551. <https://doi.org/10.1177/0038026118822823>

Digital Object Identifier (DOI):

[10.1177/0038026118822823](https://doi.org/10.1177/0038026118822823)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

The Sociological Review

Publisher Rights Statement:

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Bedouins of Silicon Valley: a neo-Khaldunian approach to sociology of technology

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Abstract

The standard narrative of the emergence, rise and decline of Silicon Valley companies focuses on the evolution of institutions and technological waves, not the mentality of the innovators and entrepreneurs. This article argues that this type of explanation of the rise and decline of the Silicon Valley firms and institutions can hardly be sufficient. The suggestion is that a neo-Khaldunian theory could shed light on the issue. This article is an attempt to, first, distinguish between the medieval and modern aspects of Ibn Khaldun's theory and second, to use the latter to examine Silicon Valley as a social phenomenon. It will be argued that Ibn Khaldun's theory is of most contemporary relevance when we read it as a general account of a cyclical replacement of the untrained with the trained, while over and above the specific, environmentally deterministic cycle he identifies between 'city-dwellers' and 'Bedouins'. In the case of Silicon Valley, these could be read as metaphors for, respectively, the established tech firms versus the garage-based start-up 'geeks'.

Keywords: Ibn Khaldun, Pierre Bourdieu, Silicon Valley, Sociology of Technology, Start-up.

1. Introduction

The standard narrative of the emergence, rise and decline of the Silicon Valley companies focuses on the evolution of institutions and technological waves, not the mentality of the innovators and entrepreneurs. For example, in their interesting article on the dynamics of Silicon Valley, Henton and Held (2013) distinguish five waves of

technological innovation which have shaped today's Silicon Valley (defence technologies, integrated circuits, personal computers, the internet and finally social media). They recognise that the technological progress made in the region follows a cyclical pattern of 'creative destruction' (2013: 541-2). Creative destruction is a term coined by Schumpeter which refers to 'the incessant destruction of the old and the incessant creation of the new' (Henton and Held, 2013: 541). The authors of the article follow a Schumpeterian scheme by examining the role of socio-economic institutions in laying the foundations for the future waves.

The main question governing their research concerns the behaviour of the Silicon Valley institutions at the macro level of social change (Henton, 2000: 47-8). The first premise of this article is that this type of explanation of the rise and decline of the Silicon Valley firms and institutions can hardly be sufficient. In addition to explaining the evolution of Silicon Valley as a technological, economic and institutional phenomenon, there is space for a more sociological contribution. Particularly the process of creative destruction mentioned above has an intrinsic yet ignored *micro-social* aspect, ie the risk-taking mentality which is one of its key background conditions. Suggesting that a contemporary re-reading of Ibn Khaldun's theory could illuminate the way this mentality functions, this article is an attempt to use elements of Ibn Khaldun's micro-sociology to help understand the creative destruction of Silicon Valley as a social phenomenon. The article could also be read as an introduction to a neo-Khaldunian approach to the sociology of technology.

In brief, I am suggesting we need to highlight and re-interpret the Khaldunian theory of training, which he initially expressed in relation to the Bedouin tribes of his day. In the harsh conditions of the desert, Bedouins learn to face daily crises without fear. Failure to do this would put at stake their very survival. The suggestion is that this theory of the Bedouins' training holds a more general importance once it is separated from Ibn Khaldun's famous historico-philosophical thesis about the role of the environmental elements in social development.

2. Why do we need to adopt a Khaldunian approach to the Silicon Valley?

At least from the mid-twentieth century, when Franz Rosenthal's translation of *The Muqaddimah* (1967) was published, Ibn Khaldun's historical social theory has drawn a lot of attention. After all, he was a fourteenth century intellectual figure in North Africa who put forward an immensely complex theory of social change. Such an achievement, retrospectively, seems impossible to many (Gellner, 1984: 86; Toynbee, 1972: 489). Perhaps, however, we are finally getting over that puzzlement; in fact, it is possible that we might be at the beginning of a tendency that is able not only to recover Ibn Khaldun's legacy, but also to clarify his relevance for twenty-first century audiences.

One sign of such a movement is that the numerous projects of re-reading Ibn Khaldun are gradually moving from history to sociology departments. In the past few

years we have seen some serious studies on Ibn Khaldun that go beyond the aim of putting him in his historical context. They rather seek to update a Khaldunian vision for our time (Alatas, 2013; 15). This article extends that line of argument, but in an area that did not exist in its modern form in Ibn Khaldun's time; namely into the area of digital technology and innovation.

3. Review of Ibn Khaldun's theory

A brief review of the main features of Ibn Khaldun's theory will shed light on his vision. In *Muqaddimah* Ibn Khaldun contemplated several issues relevant to his time and society. Most of his insights take the form of social criticism; criticisms of illusions and misunderstandings about society. Ibn Khaldun debunks the myth that people are *inherently* different (Ibn Khaldun, 1989: 106; Dale, 2015: 165). He believed that it is only from an uncritical point of view that urbanites appear to be more intelligent. Instead a philosopher of history (a Khaldunian equivalent of a social theorist) would understand that 'it was nurture not nature that yielded distinct human social organization' (Dale, 2015: 165). The difference between urban dwellers and Bedouins, for example, was to be explained by the diverse systems of upbringing, nurture, and training shaping their habits. For Ibn Khaldun, a mere reporter of history will deal only with surface phenomena, while a 'scientist' will distinguish between the series of events and their deep meanings, trajectories and recurring patterns. He emphasized that the methodology of explaining social events must also be rational, which for him implies both some sort of empirical examination of ideas, and a rejection of all forms of rhetoric in science (Ibn Khaldun, 1989: 30-45). Throughout his book, he frequently returns to these methodological requirements.

His thesis could be summarised in this way: Ibn Khaldun distinguishes between two types of societies, sedentary civilization and rural tribalism. The main characteristic separating the two is what he called *asabiyya* (group feeling). I will argue below that it is misleading to define *asabiyya* merely as solidarity, whether based on blood-ties, kinship or religious feelings. However, Ibn Khaldun believed that '[s]ocial groups with stronger kinship ties have stronger *asabiyya* and are superior to the extent that their levels of mutual aid and affection are greater' (Alatas, 2015: 31). He argued that the strength and nobility of the group's leadership was a factor which could lead to its superiority. Yet, he insists that nobility is not inherited through blood, but is the result of personal quality and as such could be achieved (Alatas, 2015: 32). The Bedouins, living in the harsh conditions of the desert, had become both skilled and trained, and their religion magnified their strong *asabiyya*/group feeling. The city-dwellers, on the other hand, with their secure life inside the city walls were mostly inclined towards a luxurious lifestyle and the delights of civilization. This left their society fragile in the face of the attacks of the hardier Bedouins. The point is that once the Bedouins had conquered the cities and built their own empire they were soon themselves absorbed into the life of the civilized world, thereby losing their

outstanding merits and qualities, including the essential element of *asabiyya*. Hence, they would in their turn be replaced by new tribes of Bedouin conquerors. His estimate was that each dynasty of Bedouin conquerors could survive up to four generations. After the fourth generation of rulers, the former Bedouins would have become so accustomed to the safe, sedentary life as to be in danger of a new invasion by another group of Bedouins. The law of four generations refers to the erosion of *asabiyya*, nobility and those qualities which made a robust state. By the fourth generation the rulers will rely on the tradition of their ancestors more than their own achieved qualities, and will thus be unable to cope with newly emerging challenges. This defines the cycle of the constant replacement of Bedouins with city-dwellers which is at the heart of Ibn Khaldun's theory. In the next section I will try to answer the question of why we need a neo-Khaldunian approach to Silicon Valley's style of technological innovation.

4. Theory of training ⁽¹⁾: What is modern about Ibn Khaldun?

I believe, most of the elements of environmental determinism in Ibn Khaldun's theory can be safely ignored, while his notion of a cycle in which risk-takers replace risk-avoiders, and vice versa, is the modern and relevant element in his theory. First, we need to notice that solidarity (in a Durkheimian sense of the term) and *asabiyya* (as Ibn Khaldun defined it) might not be the same. What Ibn Khaldun means by the term is subtler.

Criticising Ernest Gellner (1984: 89), Malešević argued that the concept of *asabiyya* that Ibn Khaldun described, is as valid today as it was for the North Africa of the Middle Ages (Malešević, 2015). By *asabiyya*, Ibn Khaldun meant the feeling of solidarity among group members, whether as a result of blood ties or religious beliefs (Ibn Khaldun, 1989: 123). Malešević stated that in order to cope with harsh conditions, modern humans must engage in prolonged interactions with each other. Those interactions generate the feelings of 'moral obligation, mutual affection, unity and cognitive interdependence' (Malešević, 2015: 93). The mutual emotional commitment, moral obligation and unity that ensue transform a simple interdependency into something more than that. This is a social mechanism able to create a powerful and functional unit which can survive and flourish under inhospitable conditions.

In this sense, and contra Gellner's assessment, Ibn Khaldun was not only the sociologist of the Maghrebian Islamic world; instead he offers a general micro-sociology of group solidarity that is just as applicable in other world regions and other historical periods. (Malešević, 2015: 93)

Further, we should not only focus on the environmental condition, which represents only the superficial aspect of Ibn Khaldun's theory. The idea of a desert condition

rather should be treated as a metaphor. The underlying significance of the desert metaphor concerns the training that is acquired through battling through numerous crises, over a long period of time. In other words, a sort of training that puts risk-taking at its centre is the origin of *asabiyya*, either in the deserts of North Africa or elsewhere. The focus on the Bedouins' particular type of training in the desert would limit Ibn Khaldun's theory to his medieval society, but on a more metaphoric reading, one can see a more general argument about the centrality of training to human character. This type of training leads to the cultivation of a group personality that is itself oriented towards risk-taking. I believe that this definition of training, which puts risk-taking at its centre is an aspect of Ibn Khaldun's theory with contemporary relevance. But in what are the elements of such training for Ibn Khaldun?

4.1. Life-long gradual exercise

First, in his account of such training, Ibn Khaldun puts emphasis on habits which are shaped by continuous practice. As Dawood mentions in his introduction to *the Muqadimmah*:

Ibn Khaldun's answer to the problem of how all higher civilization is preserved lies in the word ملكه *Malakah*, 'aptitude' or 'habit'. Through continuous practice an individual may master a craft or a science, thus making it his 'habit'; and since the acquisition of habits is a matter of education and training, habits can be passed on to others willing and fit to learn them. (Dawood, 1989: xii)

In some paragraphs of the *Muqadimmah*, Ibn Khaldun suggests that it is possible to escape one's fate (such as death because of famine) through acquiring exercises and habits in this way (Ibn Khaldun, 1989: 67-8). His conclusion is also daring and intriguing; 'those who die in famines are victims of their previous habitual state of satiation, not of the hunger that now afflicts them for the first time' (Ibn Khaldun, 1989: 67). He compares the form of life and habits of those Arabs who live in the 'wastelands' and those who live in Cairo: the former are more resilient to natural disasters because of their exercises and eating habits. They could survive for days with a few dates and a small amount of water because they have practised that regimen constantly. However, the luxurious life available in a metropolitan city like Cairo made the city-dwellers physically and psychologically fragile in face of disaster (Ibn Khaldun, 1989: 66-8). There are some passages in *the Muqadimmah* which discuss details of the miraculous abilities of ascetics and Sufis who have not eaten in years or just drank goat milk in their life-time. Many contemporary scholars prefer to skip those passages because of their medieval reference --to the mysterious and strange life of a few. They consider those parts of the book irrelevant to the more famous image of the cyclical motion of history. However, these examples, which Ibn Khaldun emphatically claims

were real, are at the centre of his argument. His conclusion is that '[i]f through gradual training [one's soul] has become used to hunger, [it] becomes a natural habit of the soul' (Ibn Khaldun, 1989: 68). Hence, gradual, step-by-step training is the key to survival, resilience, power and *antifragility*⁽²⁾--as Nassim Nicholas Taleb calls it (Taleb, 2013).

4.1.1. Ibn Khaldun's aptitude and Bourdieu's habitus

One can also see the affinity between Ibn Khaldun's concepts of aptitude (*Malakah*) and Pierre Bourdieu's concept of 'habitus'. Interestingly, both of these figures developed their concepts on the basis of empirical studies of the Berbers of North Africa. Bourdieu not only developed concepts such as the habitus to explain gender politics and the sense of honour among the Kabyle Berbers of northern Algeria, but he also used the concepts derived from his Kabyle ethnographical study as the basis for other studies throughout his life (Goodman and Silverstein, 2009: 2). His study was similar to Ibn Khaldun's *Muqaddimah* in yet another way: he also considered the Kabyle culture to be in danger. He knew that French colonialism is essentially not only a project of exploiting but also of destroying the colonised North Africa. His project, similar to that of Ibn Khaldun, was a 'rehabilitation' project as well (Goodman and Silverstein, 2009: 22).

Be that as it may, Bourdieu was critical of the projects of the 'grand social theorists'. He believed that we can only construct temporary conceptual and theoretical constructs or as he called them *thinking tools* to explain certain aspects of reality (Bourdieu et al., 2014). Developed in his Kabyle ethnography, Bourdieu's notion of the habitus was a conceptual construct to bridge the theoretical gap between two extremes in modern social theory: the gap between structure and agency, as well as the gap between the social and the individual (Jenkins, 1992: 44). Bourdieu suggests that his concept of the habitus is an explanatory tool which could help sociologists to go beyond such false dualisms. His most straightforward definition of the habitus is as 'the strategy-generating principle enabling agents to cope with unforeseen and ever-changing situations' (Bourdieu, 1977: 72). The habitus thus refers to internalised principles and systems which shape our everyday practice and allow us to anticipate the demands of certain circumstances. These internalised structures and principles are both known and unknown. They are conscious, in a sense that we think through them, yet unconscious because they are the habitual, mostly unexamined element of behaviour.

In Bourdieu's own words, the habitus refers to:

...systems of durable, transposable *dispositions*, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be objectively 'regulated' and 'regular' without in any way being the

product of obedience to rules, objectively adapted to their goals without presupposing a conscious aiming at ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conductor. (Bourdieu, 1977: 72)

Bourdieu showed a major deficit in the status quo social theory of the day. That is focusing on ideas and representations and were overlooking 'the key role played by embodied affect, custom and habit in securing agents' adherence to the status quo' (Lane 2006: 36). Unreflective practices informed by habits were as much embodiments of the dominant ideology as normative discourse.

We can safely assume that Ibn Khaldun would not disagree with Bourdieu's definition of habitus, yet might not find it sufficient. The key difference in their understandings of those strategy-generating principles is in their diverging conceptions of normal and abnormal conditions, or of peaceful and troubled times. While Bourdieu used 'habitus' as part of his theoretical rejection of rational action theory, he seems to think that at the time of crisis the subject could experience a moment of despair and rupture. In such moments, the individual's capacity for rational choice seems to take over from the habitus. Since the habitus is interrupted and stops giving its bearer usable instructions (that is internally imbedded instructions through the habitus) during the unfamiliar, troubled conditions, there will not be many other options for decision-making besides individual rationality. Still, Bourdieu emphasised that this is an option provided by habitus itself (Jenkins, 1992: 47).

For Ibn Khaldun the main concern is the explanation of the nature of the crisis and the methods of coping with it. In Ibn Khaldun's vision a successful training system must be organised around conditions of unavoidable crisis. Moreover, in his view training is a constant process of dealing with minor crises, such as the state of living deep into desert provides. So, crisis is not only an exceptional battleground but also a training field for gaining resilience. While for Bourdieu the game almost stops when it comes to crisis, for Ibn Khaldun crisis is the very game. Khaldunian aptitude finds its proper place in the crisis, whilst Bourdieu's habitus is a theoretical construct which explains the continuity of the status quo.

We should highlight Etienne Wenger's concept of communities of practice which is, arguably, an extension of Bourdieu's 'habitus' in a Khaldunian direction. A community of practice could be a tribe, a group of engineers or a group of young 'geeks' working on a start-up. The key to Wenger's definition of the term is the engagement of a group of people in a shared process of doing something and learning through regular interaction (Wenger, 1998). Wenger underlines the differences between his and Bourdieu's conception of the term:

Pierre Bourdieu [...] argues that practices are generated from an underlying structure, which he calls the habitus. In my argument, the habitus would be an emerging property of interacting practices rather than their generative infrastructure, with an existence unto itself. (Wenger, 1998: 289)

Ibn Khaldun's conception of aptitude is more akin to Wenger's usage of the term. The difference in their emphasis might be due to their respective political agendas of suggesting a theory of learning (in Wenger's case) and theory of survival through achieved resilience (in Ibn Khaldun's case). In brief, three elements of Ibn Khaldun's conception of life-long gradual exercise could be compared with Bourdieu and Wenger's conceptions:

1. The internalization of those strategy-generating principles makes exercise possible (similar to Bourdieu's conception). Yet for Ibn Khaldun the mechanism by which such praise-worthy habits are acquired consists in living in harsh conditions, such as training camps or deserts.
2. The exercise in question is conceived as essentially collective, as a community practice, rather than as an individual phenomenon.
3. Such collective exercises are seen as constituting social forces capable of contributing to shifts in history. Those shifts are the proper object of the new science of human social organization (*ilm al-umran*, a precursor to modern sociology) that Ibn Khaldun is proposing (Baali, 1988).

The dramatic aspect of the transition from desert to city, and from grandma's garage to Silicon Valley firms, might blind us to the social aspect of the phenomenon. Ibn Khaldun makes sure to emphasize the necessary roles of the group, for example of the tribe or of allies, in his analysis of the rise of Bedouins. This emphasis is also important to analysis of the rise of the Silicon Valley giants. Reliance on the geeks' biographies might be misleading since it reduces a social phenomenon to an individual success story. This, after all, was one of the main methodological points of Ibn Khaldun; do not reduce a social phenomenon to an individual one.

4.2. The ideal formula for success

Secondly, Ibn Khaldun puts forward an ideal formula for success and triumph, which combines the external law and discipline characteristic of religions allied to the internalised desert attitude. In other words, when trained and courageous Bedouins accept the rule of a charismatic leader or a Saint, they become undefeatable. This formula is based on his typology of laws and their effects on training systems. He believed that the external law imposed on people of the city (who are untrained)

breaks their fortitude and destroys their risk-taking power (Ibn Khaldun, 1989: 95-6). They are systematically turned into cowards and obedient subjects. Such people have no option but to externalise and outsource their protection and must trust in the city fortifications rather than in themselves (Ibn Khaldun, 1989: 95). Once more, the fortification of the city can be taken as a metaphor, which should not distract us from the broader significance of the argument. It is the blind trust in the protection of large organizations and governments that cultivates untrained and risk-averse citizens.

In contrast, when trained Bedouins accept the external law they become much more powerful. For example, the teachings of a prophet which unite them under one flag 'causes rudeness and pride to disappear and exercises a restraining influence on their mutual envy and jealousy' (Ibn Khaldun, 1989: 120). One can say Bedouins in Ibn Khaldun's scheme are wild *Übermenschen* in the desert waiting for a charismatic leader to organize them as a community. That would be the golden formula for success.

Arguably, the Nietzschean concept of the *Übermensch* is much more relevant to Ibn Khaldun's understanding of the Bedouins than Arnold J. Toynbee's concept of the 'external proletariat'. Toynbee popularized Ibn Khaldun's theory even before Rosenthal's translation of *The Muqaddimah* (Irwin, 1997: 466). He was arguably the first scholar that attempted to put forward a neo-Khaldunian theory.

Toynbee rejected the view that '*asabiyya*' was virtually a monopoly of the nomads—or the 'external proletariat' in his peculiar terminology. He deplored the fact that Ibn Khaldun was unable to envisage urban communities as possessing '*asabiyya*'. (Irwin, 1997: 468)

Toynbee continued by asserting that, for example, the inhabitants of Italian city-states of fourteenth century also possessed *asabiyya* (Irwin, 1997). He was right. The concept of Bedouin, as Ibn Khaldun defined it, is more about internal power, courage, and risk-taking. The training system of the Bedouins for Ibn Khaldun resembles what the Nietzschean philosopher Peter Sloterdijk calls an anthropotechnics system. In his *You Must Change Your Life* (2013a), Sloterdijk defines anthropotechnics as 'the methods of mental and physical practising by which humans from the most diverse cultures have attempted to optimize their cosmic and immunological status in the face of vague risks of living and acute certainties of death' (Sloterdijk, 2013a: 10). In other words, anthropotechnics are techniques of self-creation and self-formation. The greatest example of anthropotechnics systems of self-creation, self-enhancement and self-formation are religions. Sloterdijk's main thesis is that religions are nothing but mis-interpreted (by non-believers) anthropotechnics systems (Sloterdijk, 2013a), which our ancestors invented to train and tame us. He also argues that atheists should not reject religion as a whole while we are still in dire need of those self-creation technics. Humans are indeed self-forming animals. We are the only animal species that shapes itself, and its life. One of the ways of doing that was through religious

ascetic doctrines. Hence, religions are not simply something about the private spiritual feelings of a believer, but anthropological phenomenon that will exist so long as human beings do (Hashemi 2: 143). Using Sloterdijk's terms we might say that Ibn Khaldun identified two major anthropotechnics systems. The one is the luxurious way of shaping life that entails externalization and outsourcing of some vital skills. The other system is about cultivating those skills and relying on one's inner abilities.

Let us return to Ibn Khaldun's description of the Bedouins. At first glance, he might seem slightly bipolar on this issue. For example, in an ethnographic paragraph he wrote:

The Bedouins [...] live apart from the community. They are alone in the country and remote from militias. They have no walls or gates. Therefore, they provide their own defence and do not entrust it to, or rely upon others for it. They always carry weapons. They watch carefully all sides of the road. They take hurried naps only when they are together in company or when they are in the saddle. They pay attention to the most distant barking or noise. They go alone into the desert, guided by their fortitude, putting their trust in themselves. Fortitude has become a character quality of theirs, and courage their nature. (Ibn Khaldun, 1989: 95)

On the one hand he was praising the Bedouins' power, discipline, dedication and iron will. On the other, he despised their destruction of civilization and all its achievements. Nevertheless, he saw this as an inevitable historical cycle of replacement. While we know that any cycle includes decline and rise, for one reason or another, modern scholars have focused on Ibn Khaldun's account of the decline of civilization more than the part of theory which is about the rise of the Bedouins. One intellectual barrier is probably that the academies are themselves quintessential products of urban civilization. Hence, it is not easy for the academics to recognise the necessity and praiseworthiness of the Bedouins' anthropotechnic systems.

All in all, the city versus desert dichotomy and the discussions of environmental conditions are interesting parts of Ibn Khaldun's work, but they should not be considered his main theoretical contribution. One rather needs to read the terms such as desert and city as metaphors for diverse anthropotechnics systems. Those examples were the medieval elements of his theory. The deeper dichotomy, which remains relevant today, is between the risk-takers and risk-avoiders or between trained and untrained. Arguably, these dichotomies provide a platform for a neo-Khaldunian sociology of technology.

4.3. Risk-taking ability

In the past few decades, particularly since the publication of Ulrich Beck's *Risk Society* (1992) the concept of risk has mostly been used by social scientists for its negative

meaning. As a result, the predominant meaning of risk for contemporary academicians is crisis, hazard or danger. Beck traced a historical trajectory from feudal society to industrial society, to risk society, which dissolves the structures of the industrial society (Beck, 1992, 1999 and 2002). Beck's question was how to prevent, minimize or channel the risks (ie crises) which are systematically produced as part of the modernization process (Beck, 1992: p. 19). The argument is that the production of wealth in the industrial society has reached a level at which creation of new risks becomes an unavoidable side-effect of the production process. These are types of risk that not only affect the current society but will adversely influence the lives of the future generations. Therefore, if Marx put forward some conceptual tools to explain the malaises of an industrial society and its subsequent inequality, Beck tried to put forward new conceptual tools to describe a post-industrial risk society. If the victims of the inequality of industrial society were shouting 'I am hungry!', the inhabitants of the risk society are shouting 'I am afraid!' (Beck, 1992). Beck believed that '[i]n the risk society, the past loses the power to determine the present. Its place is taken by the future' (Beck, 1992: p. 34). The unknown and the unintended consequences are unavoidable parts of our calculations. We are haunted by the shadow of future events, which constantly shape our current decisions, actions and even our state of mind.

What could Ibn Khaldun add to this argument? A neo-Khaldunian sociology of technology could be reconstructed through a critical dialogue with such popular conceptions of risk. For Ibn Khaldun, hazard, destruction and catastrophe are not the only results of a crisis. Crises are human-made, but they also make human beings. Crises are training camps. They are the source of construction as well as destruction. In the words of Nietzsche, that which does not kill us, makes us stronger. This urge to become stronger was arguably the motivation behind writing *the Muqaddimah*. Ibn Khaldun was not a nihilist historian of decline. His vision was hopeful, and he sought to write a guide to survival for the future generations. According to him, the key to survival also was getting used to crises and forming one's life around skills of risk-management. In a sense, he was a theorist of what nowadays we call Post-Traumatic Growth (PTG), which refers to the enhanced personal development of victims of major traumatic events (Tedeschi and Moore, 2016). The crises and consequent traumas, however destructive, are not just anticipated, frightening and disastrous events in the future. They are a call for self-formation and self-improvement. As shown above, it was for this reason that he admired the Bedouins' strength and blamed the city-dwellers for the laziness of their form of life. That laziness and systematic cowardice of the urbanites is the true root of a disaster. My final point is that such Khaldunian positive definition of risk-taking is helpful in describing the process of creative destruction in Silicon Valley.

5. The 'geeks' of Silicon Valley

In the last section I will find the three mentioned elements of a Khaldunian theory of training in the Silicon Valley style of entrepreneurial behaviour. The idea is that these descriptive elements are useful in developing a more comprehensive sociological understanding of the region.

'Geeks', 'computer nerds' or 'hackers' are the names of the Bedouins of Silicon Valley. Christopher Kelty in his study of cultural significance of free software prefers the term geek for a very specific group of software programmers, that is, those who share an idea of the internet 'as representing a moral order' in which free access is not only about software but 'reorientation of power and knowledge' (Kelty, 2008: 2-35). Kelty's ethnographic study of Free Software geeks shows that they use the term to signal being outside power. What connects them then would not be nationality, skin colour or even type of job. Instead:

Geek is meant to signal a mode of thinking and working, not an identity; it is a mode or quality that allows people to find each other, for reasons other than the fact that they share an office, a degree, a language, or a nation. (Kelty, 2008: 35)

Geeks are Bedouins of Silicon Valley because what connects them is not mere use of internet (like internet users) or even the using it against real-world laws and structures (as hackers do). What connects them is a quality, a mode of thinking about the internet and a mode of practice. Kelty suggests that until mid-1990s, geeks were typically underground network of college students, university students and computer scientists who cared about the internet as an open and powerful infrastructure which can fundamentally transform aspects of our life (Kelty, 2008). Though individual geeks might not have said so in so many words, the crucial fact is the existence of a shared set of practices which binds them together. This is the key to our discussion as well.

Bedouins, as described by Ibn Khaldun, and geeks, as described here, are both connected by some attained personal qualities and practices. What connects them are those qualities and subsequent practices, more than blood ties. Although Ibn Khaldun emphasised the importance of kinship in group success, he also acknowledged the social effects of blood-ties on improving the group's *asabiyya*. However, where blood and lineage were treated as the basis of a sense of identity and prestige, this should be taken as a sign of the impending demise of the civilization (Ibn Khaldun, 1989: 99). Kelty follows a similar line of argument. What binds geeks together as a community is their marginalisation in terms of power and wealth, allied to their sharing of an image of 'a technical infrastructure' as a moral order (Kelty, 2008). This is a useful definition which characterises the last two waves out of five mentioned waves of technological innovation in Silicon Valley. Drawing on Ibn Khaldun and Kelty, we must define the geeks, the Bedouins of

Silicon Valley, as dispersed and diverse communities of practice. Their shared tech-oriented moral order enshrines and embraces values such as open-access, innovation and risk-taking. These are internalized as strategy-generating principles as well as measures of success.

The first element was gradual, step by step training under conditions of hardship. This element is about the so-called tech geeks' hardship, struggle for survival, anonymity, and their location's insignificance. The geeks at this first level go through a long and painful process of exercise. During the process they are nobodies in what the French anthropologist, Marc Augé, named a non-place (Augé, 2000). Non-places (as against the anthropological place) contain airports, passages, corridors, terminals, or bus-shelters. As Augé defined it: the 'user of a non-place is in contractual relations with it' (2000: 101); a good example is a passenger waiting in an airport with a ticket in hand. The ticket is the contract which turns the individual into a passenger. That is an identity shared by millions of other people at the same time. Hence, it occludes all those subtle and unique characteristics which form an individual.

'Anthropological place' is formed by individual identities, through complicities of language, local references, the unformulated rules of living know-how; non-place creates the shared identity of passengers, customers or Sunday drivers. (Augé, 2000: 101)

The nobody in a non-place plays a central symbolic role in Silicon Valley. If you take an open-top bus tour around Palo Alto, they will take you to an old house garage. There you will see a plaque under California's bear flag, which marks the so-called birthplace of Silicon Valley. There is not much to see there, except an old house and the so-called 'HP garage'. That is the place that in the 1930s William Hewlett and David Packard, two students at Stanford University started their electronics company. Launching a start-up in grandma's house garage is not only the shared story of many of the founders of the successful Silicon Valley firms, but also a central part of their narrative identity. The idea is that spending a long time in a garage working on their own start-up shapes habits which tech geeks will find useful in the next stage of their career. Moreover, those leading the successful Silicon Valley mega-firms are constantly afraid of the anonymous geeks in a garage. Thus, Google CEO Sundar Pichai has acknowledged in an interview that Google's greatest threat could lie in its success blinding it towards the danger from small teams of Silicon Valley geeks. 'Pretty much every great thing gets started by a small team' (Kiss, 2017). He adds that as CEO of one of the greatest companies in human history, 'you always think there is something in a garage—something that will be better' (Kiss, 2017). Probably this awareness is the root of Google's decision to open a start-up incubator. As Pichai confirmed, the incubator known as *Area 120* is a place for Google's engineers to dedicate some of their time to their own start-up projects (Helft, 2016). This recognition and even

embrace of the historical role of the bold ideas of nobodies represents a historically unique awareness, that is a key characteristic of Silicon Valley.

That the leading powers in the Valley should welcome the contributions of nobodies to the next phase of creative destruction of current technologies is a modern development which Ibn Khaldun could not anticipate. He could not see how city-dwellers might actively pursue fresh energies in this way. He hinted that there were cases in which *asabiyya* had been artificially implanted into the cities, but he considered them historical exceptions (Fromherz, 2010). On the contrary, Silicon Valley has accepted the pragmatic benefits of the idea of creative destruction as the motor engine of the tech progress. Christine Finn, in her study of tech museums and institutions which are engaged in the history of computing in Silicon Valley, observed that 'the destruction of the old Valley was less seen as the loss of heritage as a move forward' (Finn, 2013: 6).

The second element was the ideal formula, the power arising from the combination of Bedouin training and a charismatic leader who is an authority behind external law. In Silicon Valley this person could be an 'angel funder' or a venture capitalist. Those are funders who invest in a start-up with the hope of substantial profit in a few years after the success of the business. On the other hand, if the business fails, the tech geeks are not required to pay back the invested amount, as in the case of a loan. It is a sort of finance system designed for high-risk businesses. In this way the risk of financial bankruptcy has been separated from other forms of risks. It thus became affordable and bearable for all the parties. William H. Draper in his *The Startup Game* (2011) describes venture capitalists and angels as 'people with deep pockets and broad networks' (Draper, 2011: 15). Those are the people who meet the would-be entrepreneurs and financially support them in developing their idea into a business.

Draper tells the story of Yahoo, which began as a start-up created by David Filo and Jerry Yang. In spring 1994, they were two students in their mid-twenties. The first version of Yahoo was nothing more than a hobby creation. In fact, it was just a list of interesting websites on the internet, which they then decided to share with others. After a while, they came up with the idea of an algorithm for an indexing scheme and an online search engine. Up to that point, Stanford University could support them by giving them a trailer. However, by January 1995 Yahoo contained 1,000 websites and one million hits per day (Draper, 2011: 16). They were then asked to move off-campus, since the university could not support their 'hobby' anymore. At that moment, the hobby turned into a serious business which needed funding for further improvements.

In this respect, Draper's description of his first visit to David and Jerry's trailer is interesting. It is a first-hand description of the first encounter of a venture capitalist with a Bedouin/geek in a desert/non-place, and a moment when a non-place turns into an anthropological place. Draper remembers his first meeting with David and Jerry; they 'came across as a bit nervous but highly confident in their technical skills' (Draper, 2011: 18). Draper adds that: 'I also recall that Fisher expressed his polite

scepticism about their ability to manage this enterprise, given their near-total lack of business experience' (2011: 18). In other words, they were totally confident of their training and skills for survival, but they did not know anything about the laws of thriving in the market. They were inhabited a university campus trailer (or a non-place) for a long time. Draper went to see the trailer as well. No wonder that he discovered that '[t]he setting [...] was not particularly encouraging—I remember that we had to step around Filo's bicycle and climb over his skis to get close enough to his small computer screen' (Draper, 2011: 18-9). Then Draper asked David to search the current tuition fee at Yale University. 'After a few more keystrokes, up popped the figure: Yale's \$21,000-per-year tuition. Amazing!' (2011: 19). Finally, Jerry Yang, David Filo and venture capitalists joined up to form Yahoo, one of the first internet search engines. That is the ideal formula that Ibn Khaldun was suggesting.

The third element in Ibn Khaldun's theory of training was risk-taking. Peter Sloterdijk referred to risk-taking as 'the pragmatic heart' of the modern age (Sloterdijk, 2013b: 51). He traces the root of the risk-taking mentality to an economic paradigm shift at the beginning of the modern age. As he puts it:

Europeans before 1500 were not greedier or crueller or more diligent than any other race before them; they were more willing to take risks—which means more loan-inclined in relation to creditors and more loan-dependent in relation to debtors, in keeping with the economic paradigm shift from the ancient and medieval exploitation of resources to modern investing economies. (Sloterdijk, 2013b: 50)

Arguably, this economic mentality was behind the colonization and slavery; making profit through risk-taking, exploring the unknown lands and exploiting the non-Europeans. From a different theoretical perspective, Steve Fuller traces the roots of the risk-taking mentality back to the late medieval nominalist movement of thinkers such as Duns Scotus who have radicalised Augustinian theology. The simple form of their argument goes like this: God is able to create any conceivable world that He wishes. Human beings have also been created in the image and likeness of God. The conclusion is that 'we have an obligation to explore those unrealised possibilities' (Fuller, 2012: 159). In other words, a medieval theological shift in interpretation of man's relationship with God was one of the foundations of the modern risk-taking mentality (Fuller, 2012; 2014).

Be that as it may, this article began with the notion of creative destruction, which is the motor engine of the Silicon Valley form of entrepreneurship. The high level of competition between firms to attract the newest ideas from the Bedouins, creates the highest level of uncertainty and fluidity that a community could imagine. This fact was a game-changer for theories of business management. As Homa Bahrami and Stuart Evans explained, the old game of the business managers was about predicting possible

futures and planning for them. While ‘the new game is about ‘surfing fluid reality’. Knowledge workers have to engage in a game of real-time adaptation, and they need innovative rules that enable them to thrive on uncertainty’ (Bahrami and Evans, 2011: 21). The point is that only endless adaptation could enable a Valley company to survive. Those companies are not constrained by tradition or history. Their very ideal is to constantly re-invent themselves. ‘Even long-standing Silicon Valley companies strive to be ‘forever adolescent’’ (Bahrami and Evans, 2011: 21).

The lack of respect for traditions, thriving on uncertainty and constant adaptation to the environment were three of the main characteristics of Bedouins as described by Ibn Khaldun. Those were praiseworthy skills of survival in the plague-infected world of Ibn Khaldun, as well as in the unpredictable modern society of twenty first century.

6. Conclusion

Our age is the age in which the main difference is between the trained and the untrained. That is the difference between those who are not afraid of taking risks and approaching the unknown and those who are risk-avoiders and prefer stability and maximum safety by turning a blind eye to the unknown. In our late modern age, taking calculated risks is more than a useful strategy; it is a necessary skill for survival. That might be more evident in Silicon Valley and its style of entrepreneurship. Yet, it is not limited to the region and is a telling story of our society. As a result, putting forward a neo-Khaldunian theory of training and re-reading his guide to survival in a dangerous world is one of the most urgent needs of modern social theory.

Footnotes

(1). I use the term ‘training’ in a sense that Peter Sloterdijk used in his *You Must Change Your Life* (2013a); constant application of self-creation technics.

(2) One relevant historical fact is that one can read *the Muqadimmah* as an attempt to make sense of a great disaster. A few years before writing this masterpiece, the Black Death outbreak had killed millions of people across Europe and North Africa (including some members of Ibn Khaldun’s family). The plague caused a public panic which also led to the emergence of teleological narratives. Those narratives saw the plague as a sign of the end of times, and that fed into a sense of existential insecurity. Indeed, the adjective ‘black’ in the name of the plague does not refer to any medical symptom but to the fear of the victims (Herlihy, 1997: 18-9; Gillespie, 2008: 46). In other places I have written extensively about the effect of this crisis on the intellectual life of medieval Europeans (Hashemi, 2017), but its effects on the intellectual life of the Muslims of North Africa still requires further historical investigation. Ibn Khaldun would make an interesting starting-point for such a study, as his ambition ‘to fashion a comprehensive science’ was in part a reaction to the plague (Dale, 2015: 7). In the midst of such a titanic cataclysm, he felt the urgency and historical duty to explain all

aspects of his world to the future generations. What he was teaching to his post-apocalypse audience was that life-long gradual training was the key to survival.

Resources

- Altasa, F. (2013). *Ibn Khaldun*, Oxford: Oxford University Press.
- Alatas, F. (2015). *Applying Ibn Khaldun: the recovery of a lost tradition in sociology*, London: Routledge.
- Augé, M. (1995). *Non-places*, London: Verso.
- Baali, F. (1988). *Society, State and Urbanism: Ibn Khaldun's sociological thought*. New York: State University of New York Press.
- Bahrami, H. and Evans, S. (2011). Super-Flexibility for Real-Time Adaptation: Perspectives from Silicon Valley. *California Management Review*, 53(3), pp.21-39.
- Beck, U. (1992). *Risk Society: towards a new modernity*. London: Sage.
- Beck, U. (1999). *World Risk Society*. Cambridge, UK: Polity Press.
- Beck, U. (2002). The Terrorist Threat: World Risk Society Revisited. *Theory, Culture & Society*, 19 (4), 39-55.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge:
- Bourdieu, P., Passeron, J., Nice, R. and Bottomore, T. (2014). *Reproduction in education, society, and culture*. Los Angeles: Sage.
- Dale, S. (2015). *The Orange Trees of Marrakesh: Ibn Khaldun and the Science of Man*, Cambridge, MA: Harvard University Press.
- Dawood, N. J. (1989). Introduction, in: *Ibn Khaldun, M. and Rosenthal, F. The Muqaddimah: an introduction to history*, Kingsport, Tennessee: Princeton University Press, vii-xiv.
- Draper, W. H. (2011). *The Startup Game: inside the partnership between venture capitalists and entrepreneurs*, New York: Palgrave.
- Finn, C. (2013). Silicon Valley. In: P. Graves-Brown and R. Harrison, ed., *The Oxford Handbook of the Archaeology of the Contemporary World*. Oxford: Oxford University Press, pp.1-17.
- Fromherz, A. J. (2010). *Ibn Khaldun, Life and Times*, Edinburgh: Edinburgh University Press.
- Fuller, S. (2012). Precautionary and proactionary as the new right and the new left of the twenty-first century ideological spectrum. *International Journal of Politics, Culture, & Society*, 25 (4): 157-174.
- Fuller, S and Lipinska, V. (2014). *A Proactionary Imperative: a foundation for transhumanism*. London: Palgrave MacMillan.
- Gellner, E. (1984). *Muslim Society*, Cambridge: Cambridge University Press.
- Gillespie, M. A. (2008). *The Theological Origins of Modernity*. Chicago: The University of Chicago Press.

- Goodman, J. and Silverstein, P. (2009). *Bourdieu in Algeria*. Lincoln: University of Nebraska Press.
- Hashemi, M. (2017). *Theism and Atheism in a Post-Secular Age*, New York: Palgrave.
- Helft, M. (2016). Google CEO Sundar Pichai Confirms 'Area 120' Corporate Incubator. [online] Forbes.com. Available at: <https://www.forbes.com/sites/miguelhelft/2016/05/19/google-ceo-sundar-pichai-confirms-area-120-corporate-incubator/#73f06aa31f2b> [Accessed 16 Jan. 2018].
- Henton, D. (2000). A profile of the Valley's Evolving Structure. In: C. Moon Lee, W. Miller, M. Gong Hancock and H. Rowen, ed., *The Silicon Valley Edge*, 1st ed. Stanford, California: Stanford University Press, pp.46-58.
- Henton, D. and Held, K. (2013). The Dynamics of Silicon Valley: Creative destruction and the evolution of the innovation habitat. *Social Science Information*, 52(4), pp.539-557.
- Herlihy, D. (1997). *The Black Death and the Transformation of the West*. Cambridge [USA]: Harvard University Press.
- Ibn Khaldun, M. and Rosenthal, F. (1989) *The Muqaddimah: an introduction to history*, Kingsport, Tennessee: Princeton University Press.
- Irwin, R. (1997). Toynbee and Ibn Khaldun. *Middle Eastern Studies*, 33(3), pp.461-479.
- Jenkins, R. (1992). *Pierre bourdieu*. 1st ed. London: Routledge.
- Kelty, C. (2008). *Two bits: The Cultural Significance of Free Software*. Durham: Duke University Press.
- Kiss, J. (2017). Google CEO Sundar Pichai: 'I don't know whether humans want change that fast'. The Guardian. [online] Available at: <https://www.theguardian.com/technology/2017/oct/07/google-boss-sundar-pichai-tax-gender-equality-data-protection-jemima-kiss> [Accessed 13 Jan. 2018].
- Lane, J. (2006). *Bourdieu's politics*. London: Routledge.
- Malešević, S. (2015). Where does group solidarity come from? Gellner and Ibn Khaldun revisited. *Thesis Eleven*, 128(1), pp.85-99.
- Sloterdijk, P. (2013a). *You Must Change Your Life: On Anthropotechnics*. London: Polity.
- Sloterdijk, P. (2013b). *In the World Interior of Capital*. Cambridge: Polity.
- Taleb, N. N. (2013). *Antifragile*, London: Penguin.
- Tedeschi, R. and Moore, B. (2016). *The Posttraumatic Growth Workbook*. Oakland: New Harbinger Publications, Inc.
- Toynbee, A. (1972). *A Study of History*, London: Oxford University Press.
- Wenger, E. (1998). *Communities of Practice*. Cambridge, Cambridge University Press.